



SEQUENCE LISTING

<110> Qin, Ning
Codd, Ellen

<120> cDNA encoding the Calcium Channel Alpha2Delta-4 Subunit

<130> calcium channel alpha2delta-4 subunit

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<170> PatentIn Ver. 2.1

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<223> Description of Artificial Sequence:
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<212> DNA

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 <223> Description of Artificial Sequence:
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Cys

<210> 8
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<212> PRT

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Leu Cys

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<211> 3486

<212> DNA

<213> Homo sapiens

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<210> 10

<211> 1090

<212> PRT

<213> Homo sapiens

<400> 10

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      20             25             30

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Gly Ser Leu Leu Leu Gln Lys Lys Tyr Lys Asp Val Glu Ser Ser Leu
      35             40             45

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Lys Ile Glu Glu Val Asp Gly Leu Glu Leu Val Arg Lys Phe Ser Glu
      50             55             60

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Asp Met Glu Asn Met Leu Arg Arg Lys Val Glu Ala Val Gln Asn Leu
      65             70             75             80

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Val Glu Ala Ala Glu Glu Ala Asp Leu Asn His Glu Phe Asn Glu Ser
      85             90             95

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Leu Val Phe Asp Tyr Tyr Asn Ser Val Leu Ile Asn Glu Arg Asp Glu
      100            105            110

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Lys Gly Asn Phe Val Glu Leu Gly Ala Glu Phe Leu Leu Glu Ser Asn
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Ala His Phe Ser Asn Leu Pro Val Asn Thr Ser Ile Ser Ser Val Gln
      130            135            140

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Asp	Pro	Thr	Leu	Thr	Trp	Gln	Tyr	Phe	Gly	Ser	Ala	Thr	Gly	Phe	Phe	180	185	190	
Arg	Ile	Tyr	Pro	Gly	Ile	Lys	Trp	Thr	Pro	Asp	Glu	Asn	Gly	Val	Ile	195	200	205	
Thr	Phe	Asp	Cys	Arg	Asn	Arg	Gly	Trp	Tyr	Ile	Gln	Ala	Ala	Thr	Ser	210	215	220	
Pro	Lys	Asp	Ile	Val	Ile	Leu	Val	Asp	Val	Ser	Gly	Ser	Met	Lys	Gly	225	230	235	240
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Leu	Gly	Glu	Asn	Asp	Phe	Val	Asn	Ile	Ile	Ala	Tyr	Asn	Asp	Tyr	Val	260	265	270	
His	Tyr	Ile	Glu	Pro	Cys	Phe	Lys	Gly	Ile	Leu	Val	Gln	Ala	Asp	Arg	275	280	285	
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Gly	Val	Gly	Val	Val	Asp	Gln	Ala	Leu	Arg	Glu	Ala	Phe	Gln	Ile	Leu	305	310	315	320
Lys	Gln	Phe	Gln	Glu	Ala	Lys	Gln	Gly	Ser	Leu	Cys	Asn	Gln	Ala	Ile	325	330	335	
Met	Leu	Ile	Ser	Asp	Gly	Ala	Val	Glu	Asp	Tyr	Glu	Pro	Val	Phe	Glu	340	345	350	
Lys	Tyr	Asn	Trp	Pro	Asp	Cys	Lys	Val	Arg	Val	Phe	Thr	Tyr	Leu	Ile	355	360	365	
Gly	Arg	Glu	Val	Ser	Phe	Ala	Asp	Arg	Met	Lys	Trp	Ile	Ala	Cys	Asn	370	375	380	
Asn	Lys	Gly	Tyr	Tyr	Thr	Gln	Ile	Ser	Thr	Leu	Ala	Asp	Thr	Gln	Glu	385	390	395	400
Asn	Val	Met	Glu	Tyr	Leu	His	Val	Leu	Ser	Arg	Pro	Met	Val	Ile	Asn	405	410	415	
His	Asp	His	Asp	Ile	Ile	Trp	Thr	Glu	Ala	Tyr	Met	Asp	Ser	Lys	Leu	420	425	430	
Leu	Ser	Ser	Gln	Ala	Gln	Ser	Leu	Thr	Leu	Leu	Thr	Thr	Val	Ala	Met	435	440	445	

Pro Val Phe Ser Lys Lys Asn Glu Thr Arg Ser His Gly Ile Leu Leu
 450 455 460
 Gly Val Val Gly Ser Asp Val Ala Leu Arg Glu Leu Met Lys Leu Ala
 465 470 475 480
 Pro Arg Tyr Lys Leu Gly Val His Gly Tyr Ala Phe Leu Asn Thr Asn
 485 490 495
 Asn Gly Tyr Ile Leu Ser His Pro Asp Leu Arg Pro Leu Tyr Arg Glu
 500 505 510
 Gly Lys Lys Leu Lys Pro Lys Pro Asn Tyr Asn Ser Val Asp Leu Ser
 515 520 525
 Glu Val Glu Trp Glu Asp Gln Ala Glu Ser Leu Arg Thr Ala Met Ile
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 Asn Arg Glu Thr Gly Thr Leu Ser Met Asp Val Lys Val Pro Met Asp
 545 550 555 560
 Lys Gly Lys Arg Val Leu Phe Leu Thr Asn Asp Tyr Phe Phe Thr Asp
 565 570 575
 Ile Ser Asp Thr Pro Phe Ser Leu Gly Ala Val Leu Ser Arg Gly His
 580 585 590
 Gly Glu Tyr Ile Leu Leu Gly Asn Thr Ser Val Glu Glu Gly Leu His
 595 600 605
 Asp Leu Leu His Pro Asp Leu Ala Leu Ala Gly Asp Trp Ile Tyr Cys
 610 615 620
 Ile Thr Asp Ile Asp Pro Asp His Arg Lys Leu Ser Gln Leu Glu Ala
 625 630 635 640
 Met Ile Arg Phe Leu Thr Arg Lys Asp Pro Asp Leu Glu Cys Asp Glu
 645 650 655
 Glu Leu Val Arg Glu Val Leu Phe Asp Ala Val Val Thr Ala Pro Met
 660 665 670
 Glu Ala Tyr Trp Thr Ala Leu Ala Leu Asn Met Ser Glu Glu Ser Glu
 675 680 685
 His Val Val Asp Met Ala Phe Leu Gly Thr Arg Ala Gly Leu Leu Arg
 690 695 700
 Ser Ser Leu Phe Val Gly Ser Glu Lys Val Ser Asp Arg Lys Phe Leu
 705 710 715 720
 Thr Pro Glu Asp Glu Ala Ser Val Phe Thr Leu Asp Arg Phe Pro Leu
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 Trp Tyr Arg Gln Ala Ser Glu His Pro Ala Gly Ser Phe Val Phe Asn
 740 745 750

Leu Arg Trp Ala Glu Gly Pro Glu Ser Ala Gly Glu Pro Met Val Val
 755 760 765
 Thr Ala Ser Thr Ala Val Ala Val Thr Val Asp Lys Arg Thr Ala Ile
 770 775 780
 Ala Ala Ala Ala Gly Val Gln Met Lys Leu Glu Phe Leu Gln Arg Lys
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 Phe Trp Ala Ala Thr Arg Gln Cys Ser Thr Val Asp Gly Pro Tyr Thr
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 Gln Ser Cys Glu Asp Ser Asp Leu Asp Cys Phe Val Ile Asp Asn Asn
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 Gly Phe Ile Leu Ile Ser Lys Arg Ser Arg Glu Thr Gly Arg Phe Leu
 835 840 845
 Gly Glu Val Asp Gly Ala Val Leu Thr Gln Leu Leu Ser Met Gly Val
 850 855 860
 Phe Ser Gln Val Thr Met Tyr Asp Tyr Gln Ala Met Cys Lys Pro Ser
 865 870 875 880
 Ser His His His Ser Ala Ala Gln Pro Leu Val Ser Pro Ile Ser Ala
 885 890 895
 Phe Leu Thr Ala Thr Arg Trp Leu Leu Gln Glu Leu Val Leu Phe Leu
 900 905 910
 Leu Glu Trp Ser Val Trp Gly Ser Trp Tyr Asp Arg Gly Ala Glu Ala
 915 920 925
 Lys Ser Val Phe His His Ser His Lys His Lys Lys Gln Asp Pro Leu
 930 935 940
 Gln Pro Cys Asp Thr Glu Tyr Pro Val Phe Val Tyr Gln Pro Ala Ile
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 Arg Glu Ala Asn Gly Ile Val Glu Cys Gly Pro Cys Gln Lys Val Phe
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 Val Val Gln Gln Ile Pro Asn Ser Asn Leu Leu Leu Leu Val Thr Asp
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 Pro Thr Cys Asp Cys Ser Ile Phe Pro Pro Val Leu Gln Glu Ala Thr
 995 1000 1005
 Glu Val Lys Tyr Asn Ala Ser Val Lys Cys Asp Arg Met Arg Ser Gln
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Leu Cys Leu Gly Leu Cys Pro Cys Arg Gln Glu His Ile Gly Met Pro
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 <212> PRT
 <213> Homo sapiens

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<210> 13
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 20 25 30

Leu Leu Arg
 35